ABSTRACT

One embodiment of the invention is a method of identifying a set of paths between a set of source routable elements of a net and a set of target routable elements of the net. The set of paths has to have a minimum acceptable number of paths. The method specifies a first total cost. It then performs a first depth-first search to identify the set of paths, where each path has a cost that does not exceed the first total cost, and each path includes a set of expansions from the set of routable-element sources to the set of routable-element targets. If the search cannot find the acceptable number of paths, it increments the total cost and performs a second depth-first search to identify the set of paths, where each path has a cost that does not exceed the incremented total cost.